


NAPIS is Evolving


2006 - 2008

The NEW

National Early Warning
Pest Information
Management System

A stylized, layered mountain range graphic in shades of teal and blue, located in the bottom right corner of the slide.

CAPS Mission

- ◆ Is Defined By:
 - ◆ PPQ Strategic Plan 2005-2009
 - PDMP
 - PHP
 - CPHST
 - E & W PPQ Regions
 - ◆ NPB Safeguarding Review 2000
 - 50 State Departments of Agriculture
- 
- A stylized, dark teal silhouette of a mountain range is positioned in the bottom right corner of the slide, partially overlapping the text of the last bullet point.

CAPS

The Circulatory System of the PPQ Program

◆ NAPIS INFORMATION the Life Blood of PPQ!

The primary role of NAPIS is to:

- ◆ Receive & make available information necessary to assist Cooperators and PPQ to;
- ◆ **Detect & identify the dangers;**
- ◆ **Access risks associated with the dangers and;**
- ◆ **Manage the risks necessary to safeguard American agriculture and facilitate trade**

IS NAPIS Capable & Ready? TO SUPPORT:

Import/Export
Certification

PEST FREE
AREAS (ISPM 4)

Inborn
pathogens

Diagnostic
Tools/Methods

PEST FREE PLACES
& FREE PROD.
SITES (ISPM 10)

Monitor /Site
Confirmation

Production Areas

Pest Risk Mitigation

Import market
Pathways

Proactive Hot
Zone - Detection

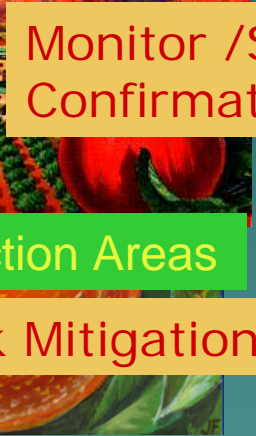
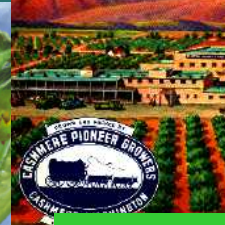
Analysis -
Predictive Models

Invasive Pests

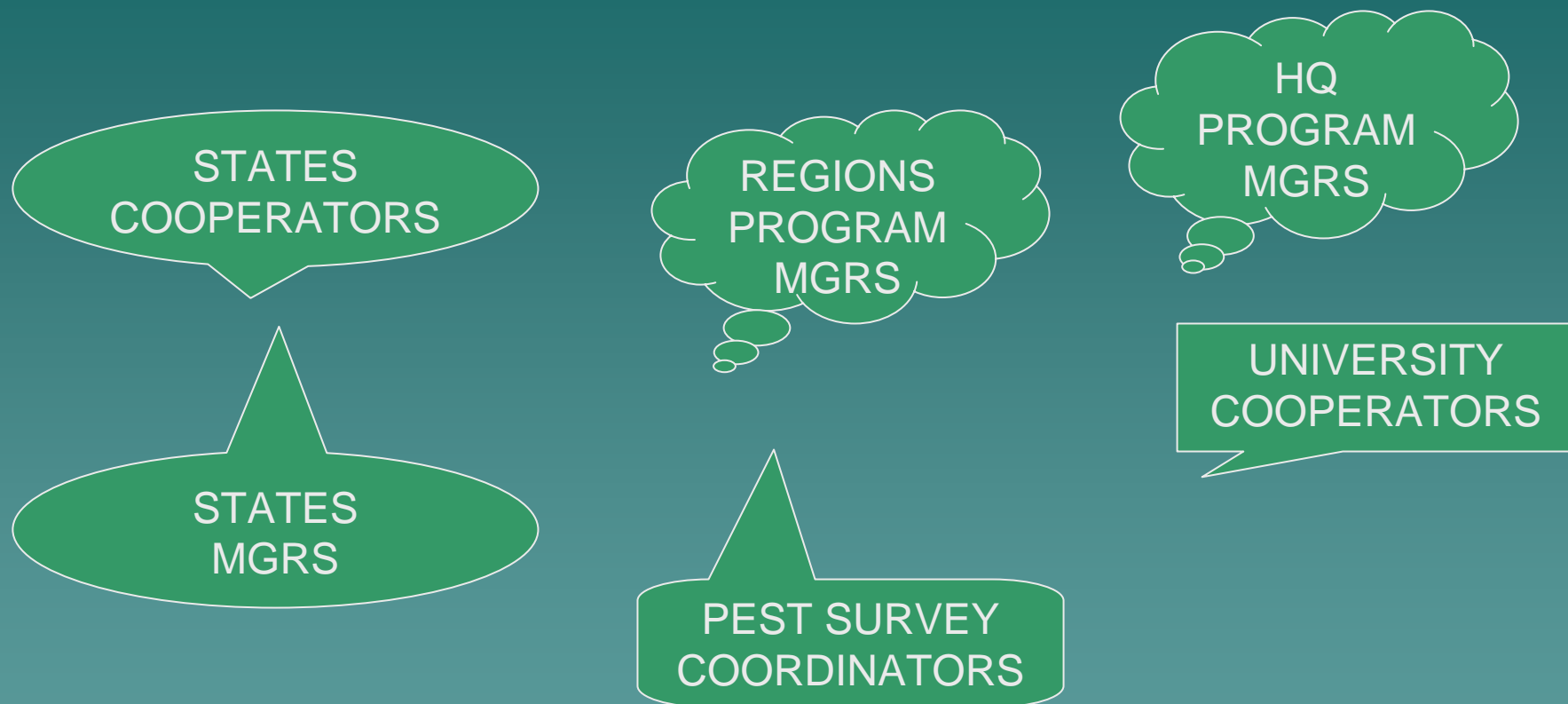
Metrological
introduced

Invasive Pests
Introduced

Early Detection
/Decision Mgt



Who's asking the QUESTIONS ?



To Get the Answers

Two Evaluations of NAPIS

1. An Internal Review of CAPS/NAPIS

By CAPS Cooperators

1. 14 Representatives from Federal, States, Institutions
2. Identified 6 major NAPIS improvements needed

2. Outside study & Recommendations

By SI International; a Recognized Contractor

1. interviewing 10 major users Groups
2. Identified 36 major NAPIS improvements needed

STATES

PPQ ER

HQ ISPM

HQ OPIM

HQ PISI

CPHST

PPQ WR

HQ PPP

HQ PIM

HQ EP

NAPIS - Findings

A. The Internal Review

1. System Capability and Flexibility

- Must meet user needs!

Flexible Queries: from perspective of what users need

Access: Combine information from other DB Sources

2. Operational Plan

- Develop based around needs of users

Business Models: Management, Decision, Planning, Analysis

3. Data Quality, Quantity

- is accurate and timely

Defined by ability to:

Instill Confidence, meet Business Model Requirements

NAPIS - Findings

A. The Internal Review (Continued)

4. Data Security

- DB design adequate to meet USDA requirements

Based on Need to Know: Available to Authorized Users

5. Data Base Management Team

- Provide oversight / approve changes

Organized Conduit to: Set standards, Insure user Needs are met

6. Human Resources

- Communications, Training and Marketing

Pathway to Insure: Transparency, Awareness, Education,

Operational Efficiency

NAPIS - Findings

B. The Out side study

Recommendations Falls in to Two Time Frames

◆ ***Short-Term Solution*** – 6 months,

1. *NAPIS Change Management*
2. *online documentation*
3. *NAPIS Data Quality Assurance*
4. *Data Collection Tools*

◆ ***Long-Term Solution*** – 18 months

1. *Data Base Upgrade*
2. *Multi-Tier Architecture Upgrade*

Short-Term Solution

6 months

1. NAPIS Change Management

- ◆ Institute a formal process to manage and control modifications to the software
- ◆ Create a NAPIS Change Control Board (CCB) to review and approve change requests
- ◆ Goal: (oversight) ensure CAPS stakeholder needs are addressed and software changes are fully tested and documented

2. On-Line Documentation

- ◆ On-line documentation to help users understand NAPIS
- ◆ To guide users through the execution of queries- turning data information

3. NAPIS Data Quality Assurance

- ◆ Performance based performance Objectives built around Workplans & Agreements – Address OMB, PPQ Requirements

4. Data Collection Tools

- ◆ Automated data entry tools
- ◆ Data collection Software Dev. protocols for 3rd party vendors
- ◆ Automated Excel Data templates - provision for paper pushers

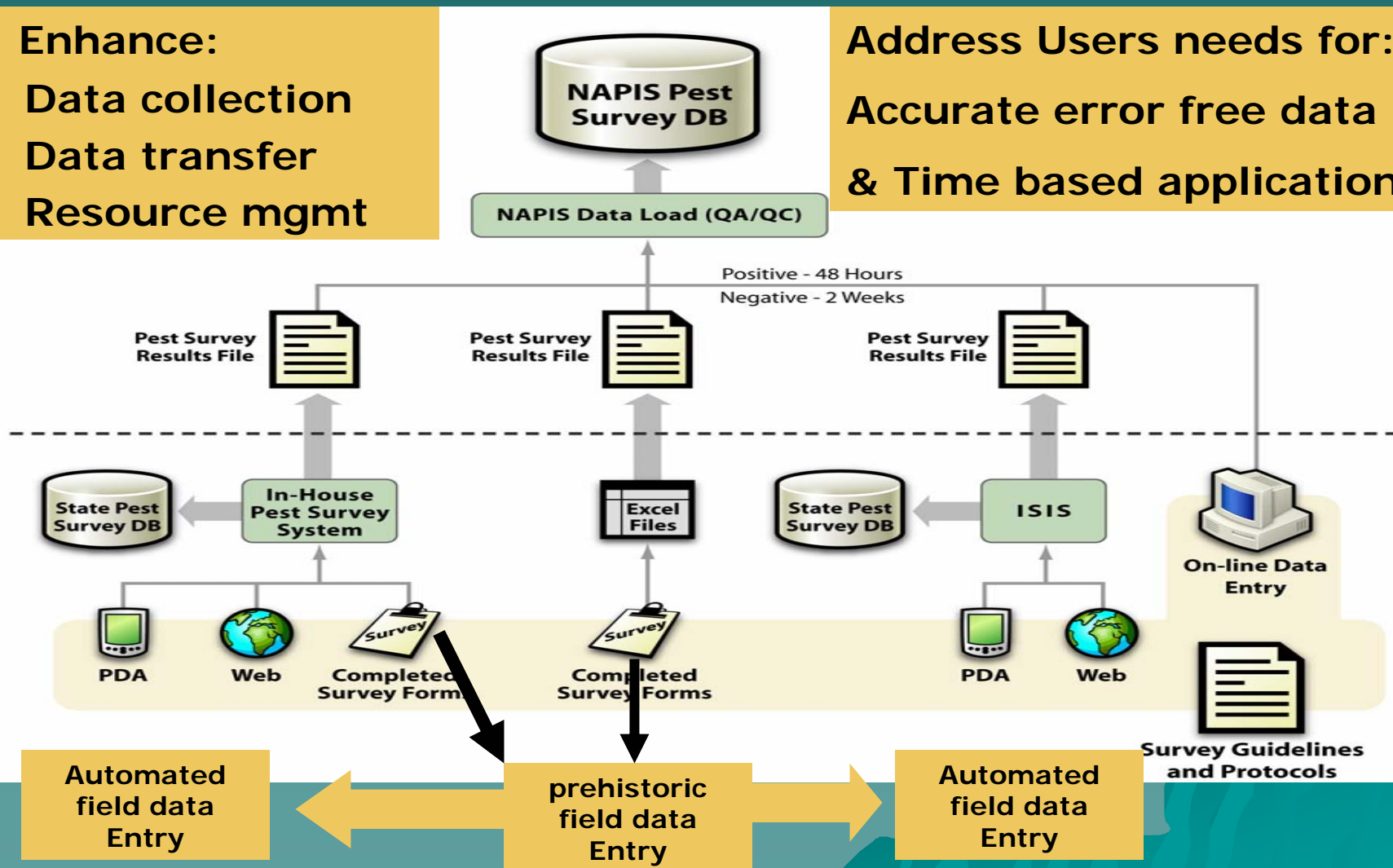
NAPIS DATA Interface

Shifting from manual to automated field data entry tools will:

Enhance:

Data collection
Data transfer
Resource mgmt

Address Users needs for:
Accurate error free data
& Time based applications



Long-Term Solution

18 months

◆ **NAPIS Database Upgrade**

Current

- ◆ Database: Inverted Flat Field
- ◆ Limited access to data
 - Scrip driven information retrieval
 - Canned Routines
- ◆ Not NIST Security C F.I.
Certified

Proposed

- ◆ Database: **Relational DB**
- ◆ **Full Query Search** Capability
information as you like it.
- ◆ **Certified NIST Security C F.I.**
Yes* it would be!

* NIST Security Controls for Federal Information Systems

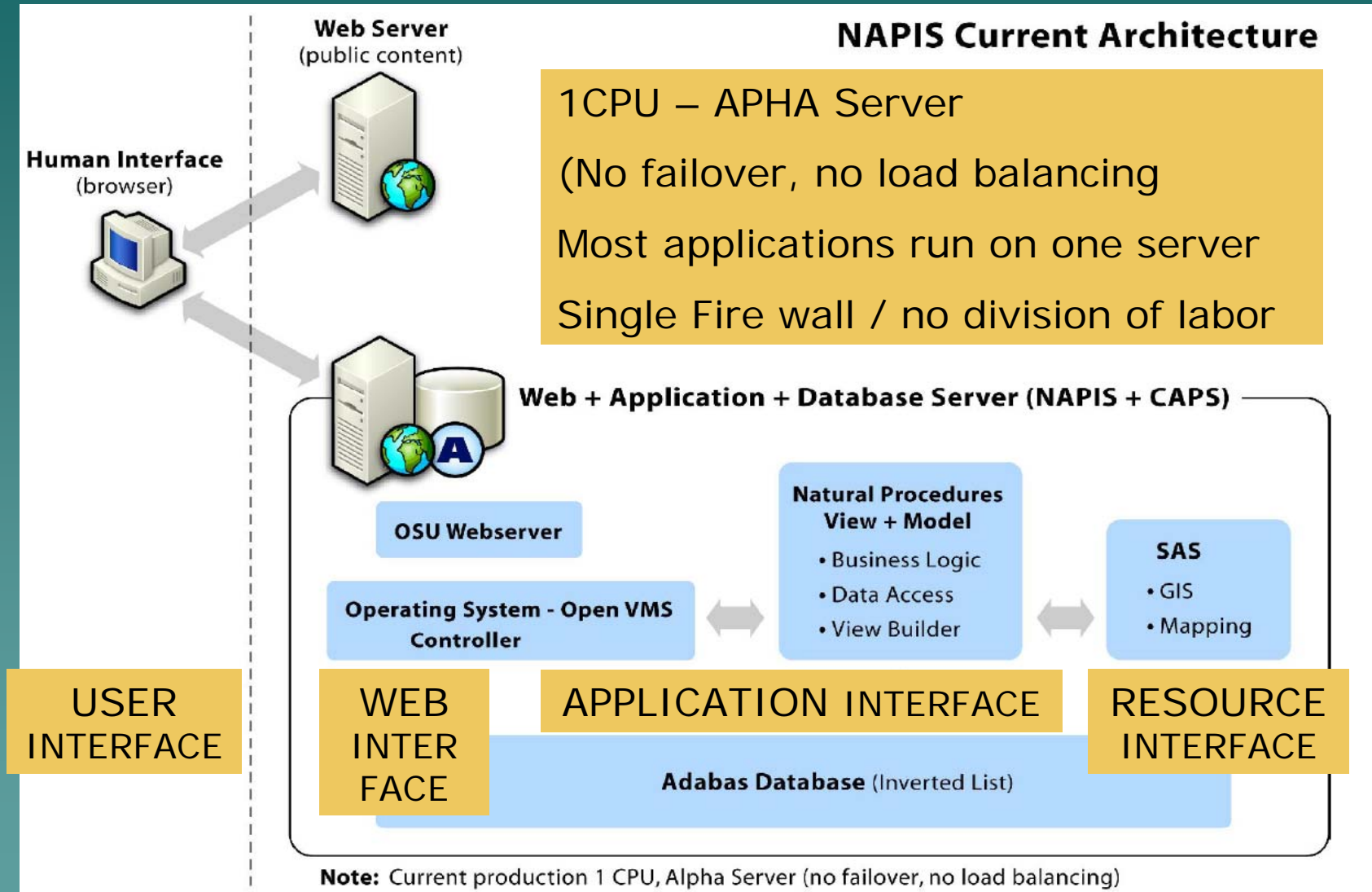
Long-Term Solution

Multi-Tier Architecture Upgrade:

- ◆ Current (Yesterdays)
- ◆ Single point Hardware
- ◆ SAS-GIS limited Map data interface
- ◆ Limited access to remote database applications
- ◆ NAPPFAST

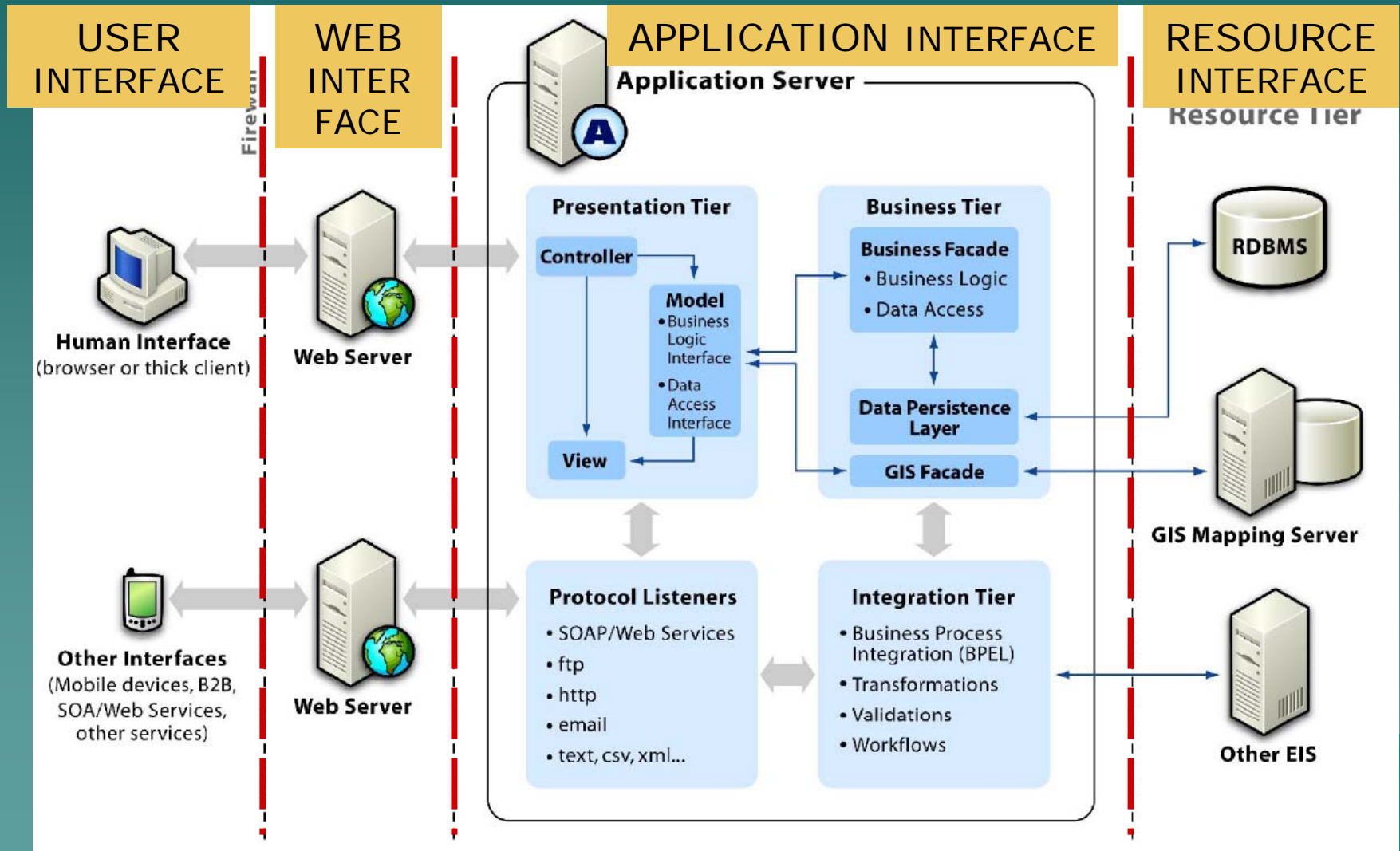
- ◆ Proposed (Tomorrows)
- ◆ Milti-Tier Architecture Hardware
- ◆ ArcGIS Service Interface (USDA STANDARD)
Designed to meet users applic.
- ◆ Able to integrate remote database data sets
- Potential links!
- ◆ PIN 309
- ◆ NASS
- ◆ NOAA
- ◆ Pest ID
- ◆ NAPPFAST
- ◆ GPDD
- ◆ Plus....

Yesterday



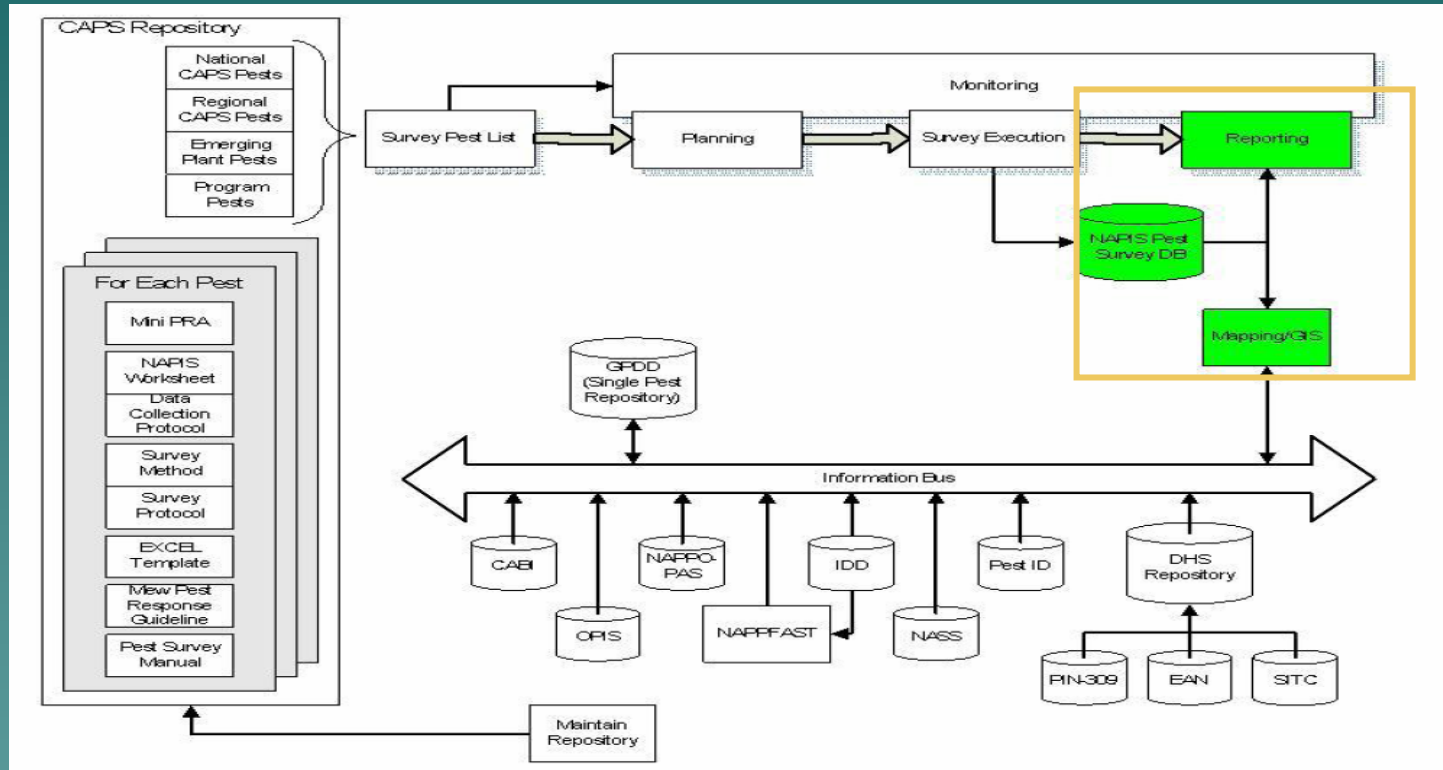
And Tomorrows System

Component Based Architecture
Integrated business Domain applic.
Integrated Firewall security



GIS Mapping Module

Every organization visited indicated a need for a more robust GIS and mapping capability to support planning and management reports – **Business Applications**



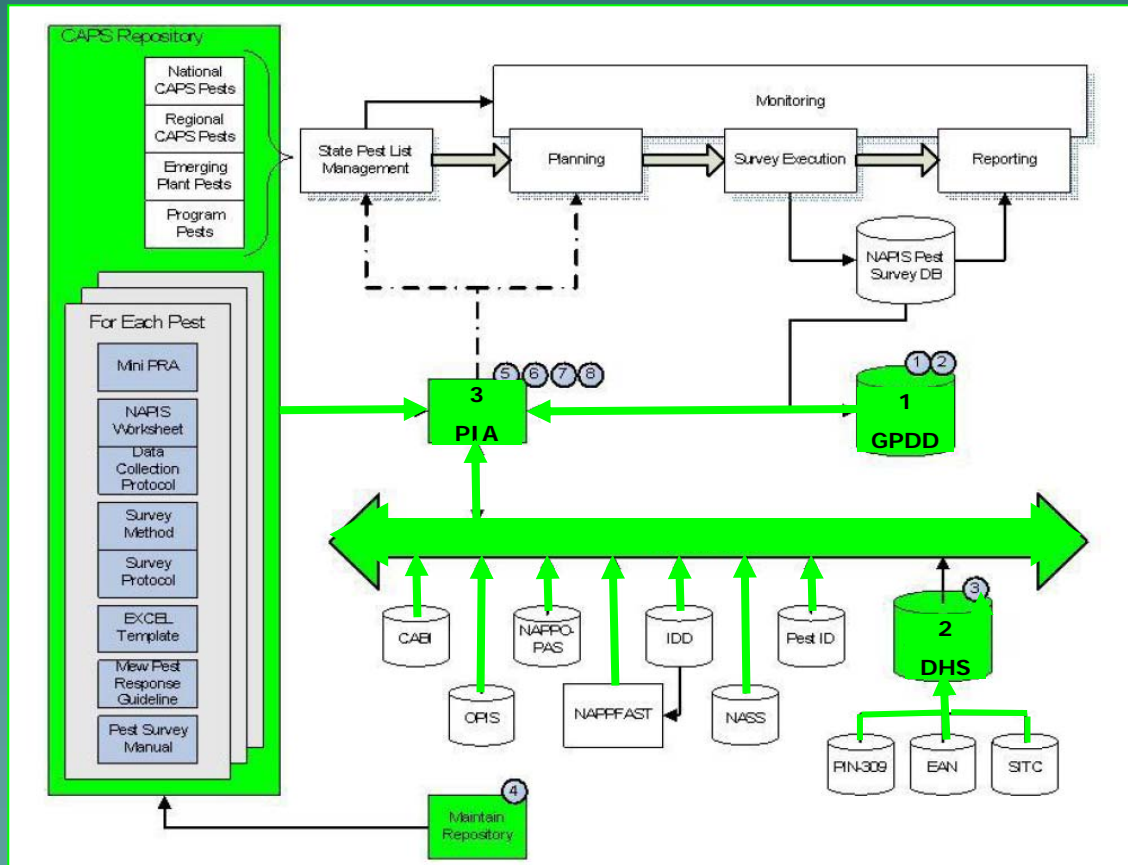
ArcGIS USDA STANDARD

It can integrate data from multiple data sources to generate composite views.

It allows user apply full range of information bus options to meet business applications

Resource Module to address Information Constraints

- 1 Single Pest Repository
- 2 DHS System Access
- 3 Pest Information Access



Non-NAPIS IT Constraints

1. As Single point Pest Repository

- ◆ *the **Global Pest and Disease Database (GPDD)** can be the authoritative source for pest information*
- ◆ *that contains taxonomy, digital images, and relevant pest data.*

2. DHS System Access

- ◆ *Initiate activities to create a repository for **PIN-309** and **Emergency Action Notification (EAN)** data*
- ◆ *Access to this data is needed to support pest selection and survey planning.*

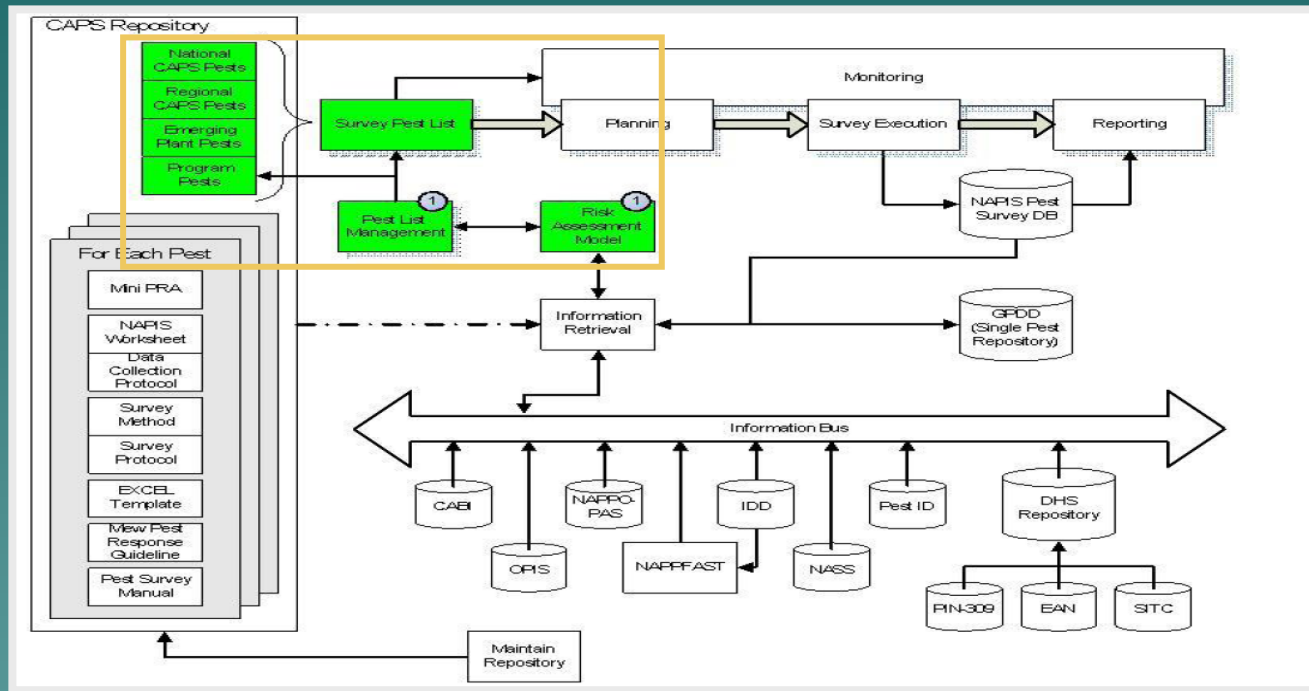
3. Pest Information Access

- ◆ *This module gives NAPIS users a simple and seamless method to access the entire universe of pest information across all sources (CPHST portal);*
- ◆ *Gives entire CAPS community the same view of a pest and is working from a common information baseline.*

Work Plan Management Module

uses Risk Assessment Framework
& Pest List Management to Prepare workplans

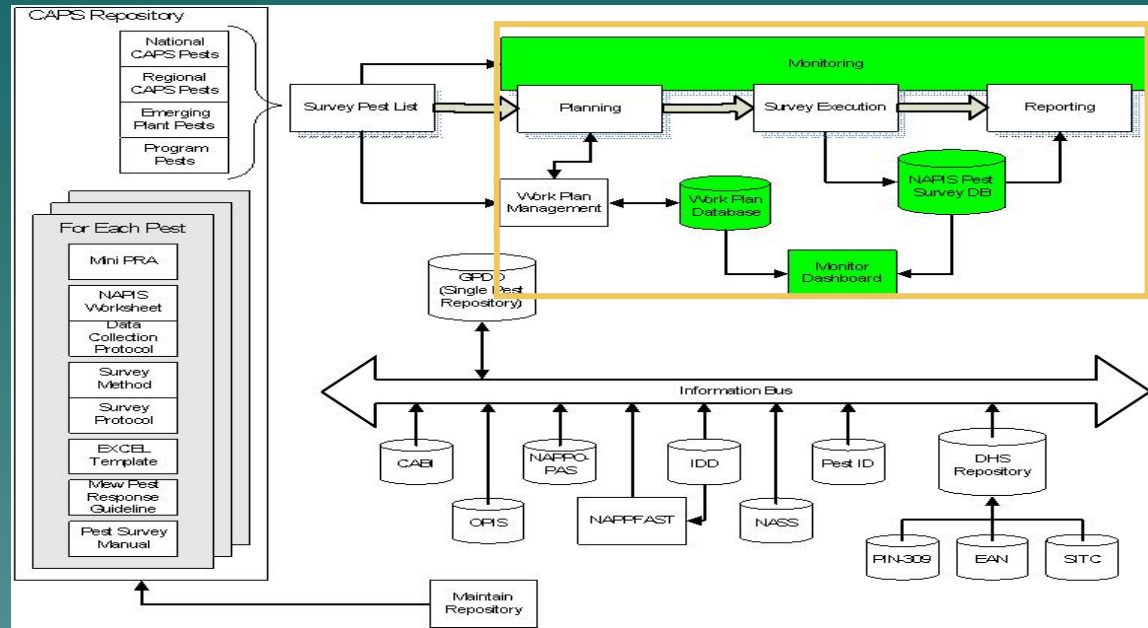
- Web based software to generation standardized work plans.



- **Integrate a risk assessment model (into the mgmt system)** to evaluate candidate pests (score) for use by the National, States and Regions.
- **This Application will support electronic submittal of work plans** for Regional review and approval.
- **Module Maintains Required work plans and the planned survey activity** for use in monitoring survey progress.

Data Quality Assurance Module

Monitor Dashboard



VALIDATE

1. Create a full set of validation rules for every pest survey:
2. Based on: NAPIS worksheet, data entry guidelines, Work plans)

MONITOR

1. Compares: " actual survey records" against work plan goals provided
2. Track survey progress for a each specific program

ALERT

Generate alert: if difference falls below a user set threshold. – improve data quality

What's in the works

Projected plans include:

- ◆ Initiate: Business application analysis.
- ◆ Formation: Change Control Board
- ◆ Let: Contract to begin work

REMEMBER THIS IS JUST
THE BEGINNING

Lets Look to the Near Future
Together

